National Aeronautics and Space Administration

MARSHALL STAR

Serving the Marshall Space Flight Center Community

Aug. 27, 2009

Lightfoot named director of Marshall

NASA news release

NASA has named Robert M. Lightfoot Jr. as the director of the Marshall Space Flight Center. Lightfoot had served as the acting director of the center since March.

"I'm very pleased to appoint Robert as the Marshall Center director," said NASA Administrator Charles Bolden on Aug. 24. "As NASA moves into an exciting new era of human and scientific exploration, Robert's skills and expertise will prove invaluable to leading Marshall into the future."

Robert Lightfoot

From 2007 to 2009, Lightfoot was deputy director of Marshall and shared responsibility for managing the center. Marshall has played a critical role in advancing NASA's exploration mission, including leading development of the Ares I rocket and the Ares V heavy cargo launch vehicles, and a lunar landing mission.

Lightfoot served as manager of the Space Shuttle Propulsion Office at Marshall from 2005 to 2007. He was responsible for overseeing the manufacture, assembly and operation of the primary shuttle propulsion elements: the main engines, external tank, solid rocket boosters and reusable solid rocket motors.

From 2003 to 2005, Lightfoot served as assistant associate administrator for the Space Shuttle Program in the Office of Space Operations at NASA Headquarters in Washington. His responsibilities included space shuttle return to flight activities, budget formulation and integration of shuttle infrastructure into NASA's

*See **Lightfoot** on page 5*

NASA sets new target launch date for space shuttle Discovery

Headquarters news release

NASA has targeted Aug. 28 as the next launch attempt for space shuttle Discovery. Launch time is no earlier than 12:22 a.m. EDT, from NASA's Kennedy Space Center, Fla.

NASA managers officially postponed the Aug. 26 launch attempt because of uncertainty about whether a valve that was commanded to be closed actually was closed.

The valve is associated with the fill and drain plumbing of the main propulsion system within the shuttle's aft compartment.

The space shuttle mission management team will meet Aug. 27 to discuss the troubleshooting results and decide whether to continue with a launch attempt.

Discovery's 13-day STS-128 flight to the International Space Station will deliver storage racks; materials and fluids science racks; a freezer to store research samples; a new sleeping compartment; an air purification system; and a treadmill named after comedian Stephen Colbert.

For more information about STS-128, visit http://www.nasa.gov/mission_pages/shuttle/main/index.html.

Successful emergency exercise helps prepare Marshall Center and Redstone First Responders team

By Amie Cotton

On Aug. 13, the Marshall Space Flight Center and Redstone First Responders team conducted an emergency exercise, simulating an emergency incident in the Building 4670 test stand area.

The exercise tested Marshall's emergency plan and response to a test stand incident. In the simulated incident, six Marshall team members were injured and one trapped on the test stand by smoke and fire. First Responders operated an Incident Command Post at the test stand and practiced incident responses.

Participating in the exercise were Marshall's Protective Services Office; Office of Human Capital; Office of Procurement; Engineering Directorate; Safety and Mission Assurance; and Center Operations as well as HEMSI – short for Huntsville Emergency Medical Services, Inc.; Redstone Fire and Emergency Services; Marshall's Coastal International Security Officers; and the Inspector General from the Office of Investigations.

Courtesy photo

Redstone firefighters and a HEMSI staff member assess an "accident victim" trapped on the Building 4670 test stand during the emergency exercise.

Courtesy photo

During the exercise, accident victims are escorted into an ambulance by HEMSI staff and Redstone firefighters while Marshall Coastal International Security Officers account for the "victims."

"A major focus of this exercise was to test our ability to immediately notify Marshall employees of a dangerous event, and account for the people who may have been impacted by the event," said Bob Devlin, deputy director of the Center Operations Office and Marshall's emergency management director.

"We successfully used our Send Word Now software as a reverse 911 function to notify people and verify that those people were safe and accounted for," Devlin added. He noted that the team will continue to train emergency personnel and test emergency communications systems over the coming months, as well as work on a series of pandemic exercises that will culminate with a center-wide training in November. A more comprehensive emergency exercise is scheduled for Severe Weather Week in February 2010.

Cotton, an AI Signal Research Inc. employee, supports the Office of Strategic Analysis & Communications.

Walter Jacobi dies at 91

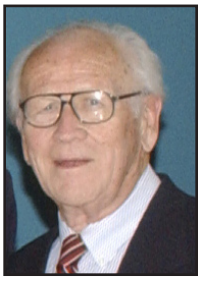
Walter Jacobi, 91, of Huntsville died Aug. 19.

Jacobi retired in 1977 from Marshall's Structures and Propulsion Laboratory.

He was born Jan. 13, 1918, in Saalfeld, Germany, and studied mechanical engineering. During World War II, Jacobi served in Peenemunde, Germany, as an engineer involved with the design, development and testing of V-2 rockets.

In 1945, he came to Fort Bliss, Texas, with Dr. Wernher von Braun, who would later become the first director of the Marshall Space Flight Center. Jacobi transferred to Huntsville with the von Braun team and worked as lead engineer on the Redstone rocket and the Jupiter missile.

In 1960, Jacobi transferred to NASA and was involved in the development of the Saturn V. He was awarded the Exceptional Service Medal for his outstanding contributions to the agency.



Walter Jacobi

He is survived by his wife Kaete, nephew Martin Rott and his wife Renate, and three grandnephews.

Star-Trek style

Science & Mission Systems Office honors team members

By Dauna Coulter

The Marshall Space Flight Center's Science & Mission Systems Office, or S&MS, paid tribute Star-Trek style to its outstanding team members at the organization's annual awards ceremony July 15.

Approximately 225 team members gathered at the Activities Building 4316 and were treated to Star Trek-themed activities such as starship building in Engineering 101 and Wii games on the Holodeck.

S&MS Assistant Manager Chris Crumbly kicked off the awards segment by asking costumed attendees to come to the stage to be judged. Marcia Crowe, an administrative support assistant for Deltha-Critique, convincingly resembling a Vulcan from the original Star Trek series, was the overwhelming winner. Next, Crumbly handed out prizes for the best trivia game expert and tin-foil starship builder to Brenda Gibbs and Janine Danne, respectively. Gibbs is a management support assistant from Teledyne Brown Engineering, and Danne is a program analyst.

On a more serious note, Crumbly addressed the audience with these words, "You may be a scientist dedicated to unlocking mysteries, or an engineer enabling that science, or an administrative professional, IT professional, lawyer, accountant or historian. Whatever your job title, you are a space professional contributing to the collective knowledge for the betterment of humankind. I want to thank each of you for your dedication to the mission."

Crumbly also named S&MS team members who received agency and center awards earlier this summer. Following his remarks, S&MS office managers announced the 2009 S&MS Group Achievement and Peer Awards winners, and S&MS Acting Manager Dr. Raymond "Corky" Clinton presented crystal statues to the recipients.

Group Achievement Award recipients included the following teams:

- Science and Exploration Research Office Capabilities Report Team
- Lunar Reconnaissance Orbiter/ Lunar Crater Observation and Sensing Satellite Mission Team
- James Webb Space Telescope Test Team
- Observing Microwave Emissions for Geophysical Applications Team
- Space Science Office Publications Metrics Team
- Earth Science Office Business Team
- Marshall Grazing Incidence X-ray Spectrometer Proposal Team
- Fermi Gamma-Ray Burst Monitor Operations Team
- Cryogenic Fluid Management Modeling and Analysis Team
- Advanced Composites Technologies Formulation Team
- Materials Science Research Rack Team for Flight Rack Delivery, Checkout and Turnover
- Constellation Support Office Program Planning & Control Team
- Constellation Systems Engineering and Integration, Integrated Test and Verification Team
- Lunar Regolith/Simulant Workshop Team
- Ares I-X Roll Control System Team

Nominated by their fellow S&MS team members, Peer Award winners were honored as tops in the categories of Communication, Teamwork, Excellence, Innovation and Above-and-Beyond service. A contractor and civil servant won in each category, as follows:

- John Wilson (Teledyne Brown Engineering) and Ernie Wright, Communication Award
- Nancy Andrews (Deltha-Critique) and Ray French, Teamwork Award
- Tim Broach (TEC Master) and Jay Carpenter, Excellence Award
- Janet Salverson (Teledyne Brown Engineering) and Richard Fischer, Innovation Award
- Gwen Artis (GDR Consulting Group), Phillip Bryant (TEC Master) and Tina Swindell, Above-and-Beyond Service Award

Clinton thanked everyone for attending, spoke of the impressive S&MS Office achievements of the past year and closed with these words:

"I'm tremendously proud of this team, and you should all take pride in these successes. We're helping to complete the International Space Station, helping astronauts get to the space station, enabling humans to live and work on the moon and rolling back frontiers of astrophysics in studying dark matter and dark energy. In fact, we're on the frontier in these and many other areas, and there's a lot of exciting work to do. Just like the crew of the Starship Enterprise, this team is always at the ready."

Coulter, a Schafer Corp. employee, supports the Office of Strategic Analysis & Communications.

Science & Mission Systems Office Acting Manager Corky Clinton, at far right, congratulates the office's Peer Award winners. Front row, from left, are Ray French, Gwen Artis, Janet Salverson, Nancy Andrews, Richard Fischer, and Timothy Broach; back row, from left, are Chris Crumbley, Tina Swindell, Ernie Wright, John Wilson and Phillip G. Bryant.

'Focus on Marshall' highlights lunar lander technology, remote sensing used to study public health

By Lori Meggs

A new spin on lunar landings and NASA technology used to study how different environments affect our health are the subjects of the August episode of the Marshall Space Flight Center's video program, "Focus on Marshall."

"Focus on Marshall" takes viewers to the East Test Area where Marshall is testing pintle, or a single-feed, fuel injector engine technology that may enable the return to the moon. This technology has the ability to throttle thrust levels for precision lunar landings. The pintle injector was used on the original lunar module descent engine on each Apollo moon mission in the late 1960s and early 1970s. Focus on Marshall looks at how this technology is tested and how it could be selected for use on Altair, NASA's next lunar lander, slated to return human explorers to the moon in coming decades.

The episode's second segment highlights the partnership between NASA and the Center for Disease Control and Prevention in Atlanta. Viewers will learn how NASA's remote sensing technology – used to study climates and environmental effects on Earth – is being applied to study health issues across the country. Marshall's remote sensing team is a participating partner in the CDC's National Environmental Public Health Tracking Program. Viewers will see how the program uses NASA satellite observations for public health projects.

The August episode of "Focus on Marshall" will air on Marshall TV on Aug. 27 at 11 a.m., noon and 1 p.m. The series is available each month on NASA TV, Inside Marshall and the NASA Portal.

Meggs, an AI Signal Research Inc. employee, supports the Office of Strategic Analysis & Communications.

Classified Ads

To submit a classified ad to the Marshall Star, go to Inside Marshall, to "Employee Resources," and click on "Employee Ads — Submit Ad." Ads are limited to 15 words, including contact numbers. No sales pitches. Deadline for the next issue, Sept. 3, is 4:30 p.m. Thursday, Aug. 27.

Miscellaneous

Appaloosa Filly Red Roan with blanket. 728-5768

Jamison queen mattress set, $100. 536-5132

Two energy-efficient window cooling units, remotes, large, $325, small, $125. 682-9067

Benjamin pump pellet pistol, model HB, rare nickel plated, 525fps, $125. 975-0256

Storage rack for free weights, metal, $25. 651-5847

AKC Miniature Schnauzer, black, female, 9 weeks old, first two sets of shots/physical exam, $400. 337-3162

Antique dining set, buffet, china cabinet, table, six chairs, $1,000 obo; antique sofa. 325-1017

Two Auburn / Louisiana Tech football tickets, Sept. 5, 6 p.m. game. 536-6436

Janome MB4 4-needle embroidery/monogram machine, $3,700. 529-0493

Thompson-Center .50-caliber Renegade Hawken type muzzleloader, $100. 682-6313

5-foot round area rug, multicolored, $75. 656-8507

Two solid oak ladder back chairs. 656-8507

Tasco spotting scope, 12-36 x50, plastic case, table tripod, black rubber coated, $30. 783-7543

Auburn football tickets, La Tech-4; Mississippi State-2; West Virginia-4; Ball State-4. 651-6534 or 881-9422

Broyhill white kitchen hutch, glass sides/doors/shelves, $300; five-piece white indoor wicker set, $350. 975-1667

RainSoft water purification system, $1,800. 783-3430

Two vintage recurve bows, Shakespeare Custer RH, 62" long; Ben Pearson 7020, 60" RH/LH. 778-8893

Half a bottle of coconut lotion from Maui, $5; long Hawaiian print skirt, size 10, $4. 837-6776

Game table, approximately 2'x4', pool, table tennis, hockey, curling, basketball, racquetball, $50. 655-7444

Heavy-duty wooden carpeted pet ramp, 40"L x 13" W x 2 ¾" thick, $40. 882-0461

Thermos Grill2Go Fire Ice roll-around combo propane griller/ ice chest, $100. 233-0705

Vehicles

2008 KX250F dirt bike, $3,400 obo. 615-417-3157

2007 Sidney Outback 28' Fifth Wheel Camper, $19,500. 679-2410

2006 Chrysler Pacifica Touring, third row, red, 25k miles, $14,500. 797-1300

2006 Yamaha Wolverine 350 four wheeler, blue, automatic, $2,650. 318-3403

2005 Acura TL, leather, navigation system, dark blue, 50k miles, $18,500. 244-0993

2003 Tahoe, Michelin tires, $500 over NADA trade-in; 1993 F350 crew cab long bed, $2,500. 723-8877

2002 Coleman Cottonwood popup, AC, stove, fridge, awning, electric brakes, new tires, sleeps eight, $3,500. 777-4439

2002 Acura MDX Touring, white, DVD with wireless headphones, 98,100 miles, $12,500. 425-3802

2000 Saturn, four door, maroon, $3,400. 468-9377

2000 Mercedes ML430 SUV, loaded, leather, navigation, entertainment package, sunroof, $6,995 obo. 520-2802

1998 Stingray RS180, new 140hp I/O, seats seven, other new parts, ski equipment, $10,000. 640-6427

1997 Harley 1200 Sportster, black, many extras, $4,800. 728-5768

1996 Toyota Corolla DX, automatic, rebuild title, 160k miles, $2,000 obo. 651-2712

Wanted

Two Alabama vs. Tennessee tickets, Oct. 24. 738-2889

Houses to clean, excellent references available; Limestone, W. Madison, Giles City, afternoons, $50. 732-4013

Houses/offices to clean, available evenings/weekends, gift certificates available. 777-8595 leave message

Houses to clean; elderly assistance. 651-4723

Electrical work to do, wiring houses, garages, yard lights, adding/removing switches, plugs, lights. 468-8906

Exercise bicycle for home use, large enough for a 6-foot man. 539-0399

Free

Small animal cage, used for a rabbit, you pick up. 797-2545.

Shepherd/Collie mix dog, shots up to date. 601-201-7229

6-year-old female Weimaraner, fixed, shots. 882-0461

Found

Gold and silver Anne Klein II women's watch, south parking lot, Building 4200, Aug. 12. 544-4680

LCROSS experiences an anomaly

From www.nasa.gov

Upon starting an early morning communications pass Aug. 22, the Lunar Crater Observation and Sensing Satellite, known as LCROSS, mission operations team discovered the spacecraft had experienced an anomaly.

According to spacecraft data, the LCROSS Inertial Reference Unit experienced a fault. The reference unit is a sensor used by the spacecraft's attitude control system to measure the orientation of the spacecraft. The anomaly caused the spacecraft control system to switch to the Star Tracker Assembly for spacecraft rate information and caused the spacecraft's thruster to fire excessively, consuming a substantial amount of fuel. Initial estimates indicate that the spacecraft still contains sufficient fuel to complete the full mission.

LCROSS mission operations declared a "spacecraft emergency" and were allocated additional communications time on the Deep Space Network. The team conducted procedures to mitigate the problem and was able to restart the reference unit and reduce fuel consumption to a nominal level. Automatic operations procedures also were implemented to minimize the possibility of another reference unit anomaly from occurring while the spacecraft is out of contact with the ground. Since the re-start, the reference unit has not experienced any additional problems.

At Marshall Star press time, the team continues to actively assess and mitigate the situation and is in contact with the manufacturers of the reference unit and star tracker to investigate the root cause of the problems. Mission managers remain optimistic the LCROSS mission can reach its successful conclusion with projected impact at the lunar south pole currently set for 6:30 a.m. CDT on Oct. 9.

Lunar Crater Observation and Sensing Satellite

LCROSS is a low-cost, highly risk-tolerant, fast-tracked mission of opportunity that was co-manifest with the Lunar Reconnaissance Orbiter. Both spacecraft launched from Cape Canaveral, Fla., on June 18. The main LCROSS mission objective is to confirm the presence of water ice in a permanently shadowed region near a lunar pole.

Lightfoot *Continued from page 1*

initiative calling for new exploration of the moon, Mars and beyond. Other responsibilities included providing technical advice and recommendations on readiness and execution of the shuttle program, with a budget oversight of more than $3 billion.

In 2002, Lightfoot was named director of the Propulsion Test Directorate at NASA's Stennis Space Center near Bay St. Louis, Miss. He served as deputy director of the organization beginning in 2001, until his appointment as director.

In 1999, Lightfoot joined Stennis as chief of propulsion test operations, managing space shuttle main engine testing and multiple NASA, Department of Defense and industry rocket engine test programs. In 1998, he was named deputy division chief of Marshall's propulsion test division.

Lightfoot began his NASA career at Marshall in 1989 as a test engineer and program manager for the space shuttle main engine technology testbed program and the Russian RD-180 engine testing program for the Atlas launch vehicle program.

A native of Montevallo, Ala., Lightfoot received a bachelor's degree in mechanical engineering in 1986 from the University of Alabama. In October 2007, he was named Distinguished Departmental Fellow for the University of Alabama, Department of Mechanical Engineering and selected as a University of Alabama College of Engineering fellow in 2009. Lightfoot serves on the University of Alabama Mechanical Engineering Advisory Board.

Lightfoot has received numerous awards during his NASA career, including a NASA Outstanding Leadership medal in 2007 for outstanding and exemplary leadership of the Shuttle Propulsion Office and assuring safety for the shuttle's return to flight. In 2006, he was awarded the Presidential Rank Award for Meritorious Executives – the highest honor attainable for federal government work.

Office of Strategic Analysis & Communications employees honored for job well done

By Megan Norris Davidson

Twelve team members in the Marshall Space Flight Center's Office of Strategic Analysis & Communications, or OSAC, were honored for their work and contributions at an awards luncheon Aug. 13 in Activities Building 4316.

OSAC Director Daniel Schumacher welcomed some 100 employees and guests to the event: "Reflecting on this past year, our organization raised the standard," he said. "Everyone in OSAC embraced teamwork, innovation and a commitment to excellence that we can all take pride in."

Nominated by their team members for outstanding contributions to the office and the Marshall Center, honorees were presented peer awards by OSAC office managers Dennis Boccippio, Business Planning & Integration Office; Dom Amatore, Public & Employee Communications Office; Sharon Cobb, External Relations Office; Edwin Jones, Performance & Capabilities Management Office; and Andy Prince, Engineering Cost Office.

Civil service employees receiving peer awards were Jerald Kerby, Communication Peer Award; Dinah Williams, Teamwork Peer Award; Pat Fuller, Excellence Peer Award; Dan Kanigan, Innovation Peer Award; and Gabrall Yeldell, Above and Beyond Peer Award.

Contractor employees receiving peer awards were Kristy Smith of Jacobs Engineering Group, Communication Peer Award; Sherri Smith Headrick of AI Signal Research Inc., Teamwork Peer Award; Joanne Reichardt of Schafer Corp., Excellence Peer Award; Dauna Coulter of Schafer Corp., Innovation Peer Award; and Brooke Boen of Schafer Corp., Above and Beyond Peer Award. All companies are based in Huntsville.

Jones also presented special awards on behalf of the Marshall Exchange to civil service employee Linda Gomez and Linda Southworth of Schafer Corp, both in OSAC's External Relations Office. They were recognized for their efforts in support of Marshall's Apollo 11 anniversary celebration, held in July at the U.S. Space & Rocket Center. The Exchange generates non-taxpayer funding to support special employee events through its vending, gift shop and retails sales, auto repair, snack bar and banking services.

Davidson, an AI Signal Research Inc. employee, supports the Office of Strategic Analysis & Communications.

Playing bingo at the OSAC annual awards luncheon are, from left, team members Linda Gomez, a program support specialist in the External Relations Office; Ken Poole, a senior project control specialist in the Performance & Capabilities Management Office; and Christie Long, a business analyst in Business Planning & Integration Office.

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